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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,273	12/02/2003	Michael A. Czayka	200047.161	3388
21324	7590	08/29/2006	EXAMINER	
HAHN LOESER & PARKS, LLP			YOON, TAE H	
One GOJO Plaza			ART UNIT	
Suite 300			PAPER NUMBER	
AKRON, OH 44311-1076			1714	

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,273	CZAYKA ET AL.	
	Examiner	Art Unit	
	Tae H. Yoon	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "said free radical inhibitor" lacks antecedent basis in claim 2.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-13 and 15-17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Parker, Jr. (US 3,429,950).

Parker, Jr. teaches a partially cured, fusible, rubbery, putty-like, solid of unsaturated polyester with styrene (B-staged prepreg) at col.3, lines 43-59 and in example 3. The use of filler in the production of said B-staged prepreg is also taught at

col. 3, line 74 to col. 4, line 10. Also, addition of peroxide in said B-staged prepreg for the complete crosslinking (final application) is taught at col. 4, lines 10-21. With respect to claim 9, an invention in a product-by-process is a product, not a process. See **In re Brown**, 459 F2d 531, 173 USPQ 685 (CCPA 1972) and **In re Thorpe**, 777 F2d 695, 697, 227 USPQ 964 (Fed. Cir. 1985).

Thus, the invention lacks novelty.

Claims 1, 5-9 and 15-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lane et al (US 5,985,785).

Lane et al teach B-stage (partial crosslinking) polymer having increased viscosity and C-stage (complete crosslinking) at col. 3, lines 16-22 and col. 9, lines 11-23. Unsaturated polyester (col. 7, lines 23-30) and styrene (col. 8, line 2) are taught. The use of electron beam or peroxide for final crosslinking of said B-stage polymer is taught at col. 8, lines 25-45. With respect to claim 9, an invention in a product-by-process is a product, not a process. See **In re Brown**, 459 F2d 531, 173 USPQ 685 (CCPA 1972) and **In re Thorpe**, 777 F2d 695, 697, 227 USPQ 964 (Fed. Cir. 1985).

Thus, the invention lacks novelty.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as obvious over Parker, Jr. (US 3,429,950) in view of Mathur et al (US 6,063,864) or Lane et al (US 5,985,785).

The invention further recites irradiation with high-energy electrons over the heat polymerization (partial curing) of Parker, Jr. However, the use of electron beam source

in curing unsaturated polyester is well known as taught by Mathur et al, col. 2, line 16-17 and col. 3, lines 40-45 and Lane et al, col. 8, lines 34-35. Both Mathur et al and Lane et al teach and equate various polymerization (or crosslinking) methods such as heat, UV radiation and electron beam.

It would have been obvious to one skilled in the art at the time of invention to utilize the electron beam source taught by Mathur et al or Lane et al in Parker, Jr. since irradiation with high energy electrons is well known in curing unsaturated polyester and since Mathur et al and Lane et al teach and equate various polymerization (or crosslinking) methods such as heat, UV radiation and electron beam and since choosing any one method would be an obvious choice.

Claims 1, 2, 5-7, 9-12, 16 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hayashi (4,167,552).

Note that a completely crosslinked unsaturated polyester with any amount of styrene, for example, would meet the invention since the recited increased viscosity encompasses that of the crosslinked matrix absent any value thereof and since the preamble, a molding compound and thickened compound, has little probative value.

Hayashi teaches a crosslinked unsaturated polyester with styrene and other additives such as fillers in abstract and examples and at col. 6, lines 5-51. Also, a photopolymerization inherently using high-energy electron is taught at col. 7, lines 14-23. Thus, the invention lacks novelty.

Claims 1-3, 5-7, 9-12, 14 and 16-18 are rejected under 35 U.S.C. 103(a) as obvious over Hayashi (4,167,552) in view of Mathur et al (US 6,063,864) or Lane et al (US 5,985,785).

The invention further recites irradiation with high energy electrons over the photopolymerization of Hayashi. However, the use of electron beam source in curing unsaturated polyester is well known as taught by Mathur et al, col. 2, line16-17 and col. 3, lines 40-45 and Lane et al, col. 8, lines 34-35. Both Mathur et al and Lane et al teach and equate various polymerization (or crosslinking) methods such as heat, UV radiation and electron beam.

It would have been obvious to one skilled in the art at the time of invention to utilize the electron beam source taught by Mathur et al or Lane et al in Hayashi since said photopolymerization and irradiation with high energy electrons are well known in curing unsaturated polyester and since choosing any one method would be an obvious choice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tae H Yoon
Primary Examiner
Art Unit 1714

THY/August 21, 2006